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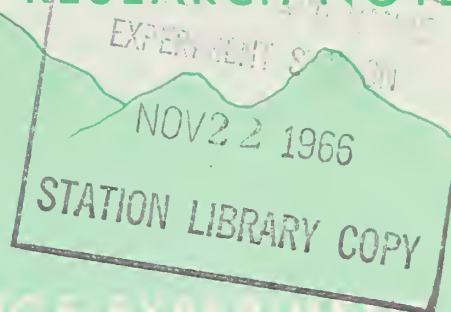
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A Site Index Table for Aspen in the Southern and Central Rocky Mountains

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The spectrum of aspen habitats was sampled and 177 mature trees were sectioned. Their individual height growth curves were used to construct nonharmonized, or natural, site index curves. The table represents height-age intercepts of the site index curves. Brief instructions are given for their use.

The following site index table was derived from natural site index curves based on 59 even-aged plots - - 48 in Colorado, 9 in New Mexico, and 2 in Arizona. Each natural site index curve was based on plots belonging in the site index class represented by that curve. The index age was 80 years.

To use the table, find the number of rings at breast height² and the total heights of three or more dominant trees. Enter the table with average height and ring count to obtain site index.

If the sample trees have fewer than 40 rings at breast height, site index estimates will be less reliable than if older trees are measured. With fewer than 30 rings, large errors may occur.

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²Rocky Mountain aspen needed an average of 4 years to reach breast height. Because the actual time required was quite variable and poorly correlated with site quality, however, breast height age should be determined directly and not estimated from total age.

Aspen rings are often difficult to count accurately. A sharp increment borer makes them more distinct. The rings can usually be counted with a hand lens if the core is moistened and held toward the sky. If trees have been attacked by the Great Basin tent caterpillar, the resulting bands of very narrow rings are especially hard to count. Accuracy is possible, however, if the core is put into a clamp and one side smoothly shaved with a sharp razor blade. Rub the shaved surface with the side of a soft pencil lead. A strong hand lens then will usually show all the rings.

Aspen stands are composed of clones-- patches of aspen within which each tree is genetically identical to every other tree. Different clones sometimes give considerably different site indexes.³ When an aspen site is to be appraised, first look it over. Are there patches of the same age but with different heights on what appears to be a uniform habitat? If there are, take site index sample trees from more than one clone.

³Zahner, Robert, and Crawford, Ned A. *The clonal concept in aspen site relations*, pp. 229-243. *In Forest-soil relationships in North America*, edited by Chester T. Youngberg. Corvallis: Ore. State Univ. Press. 1965.

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